

Title (en)  
COMPACT PROJECTILE LAUNCHER

Title (de)  
KOMPAKTER GESCHOSSWERFER

Title (fr)  
LANCEUR DE PROJECTILE COMPACT

Publication  
**EP 1757088 A4 20101124 (EN)**

Application  
**EP 05773596 A 20050512**

Priority  
• US 2005016686 W 20050512  
• US 57054804 P 20040512

Abstract (en)  
[origin: WO2005114989A2] The present embodiments provide compact launching apparatuses for use in launching non-lethal projectiles. Some embodiments provide handheld apparatuses for use in launching non-lethal projectiles that include a source of compressed gas, an expansion chamber cooperated with the source of gas to receive gas released from the source of gas, a barrel having a bore aligned with an output of the expansion chamber, and a burst disk positioned between the barrel bore and the output of the expansion chamber. The burst disk is configured to rupture releasing the gas within the expansion chamber when the pressure within the expansion chamber. Some embodiments provide for quick reload devices with disposable portions of the apparatus. Some embodiments contain a gas pressure diffuser to enhance the ability to simultaneously launch multiple frangible projectiles. The present embodiments can be used offensively, and defensively as protection against threatening humans or animals.

IPC 8 full level  
**F41B 11/06** (2006.01); **F41B 11/62** (2013.01); **F41B 11/83** (2013.01); **H04N 5/225** (2006.01)

CPC (source: EP US)  
**F41B 11/62** (2013.01 - EP US)

Citation (search report)  
• [XYI] US 5230324 A 19930727 - VAN HORSSSEN ARDEN D [US], et al  
• [XYI] US 2003047105 A1 20030313 - VASEL EDWARD J [US], et al  
• [Y] US 5078117 A 19920107 - COVER JOHN H [US]  
• [Y] US 5361524 A 19941108 - KARKAU ROBERT R [US], et al  
• [XI] US 6615815 B1 20030909 - LIANG GUODONG [TW]  
• [X] US 2003145840 A1 20030807 - SANFORD MATTHEW J [US], et al  
• See references of WO 2005114989A2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005114989 A2 20051201; WO 2005114989 A3 20090402**; EP 1757088 A2 20070228; EP 1757088 A4 20101124;  
US 2006027223 A1 20060209

DOCDB simple family (application)  
**US 2005016686 W 20050512**; EP 05773596 A 20050512; US 12923005 A 20050512